

REMARKS

Summary of the Office Action

The disclosure stands objected to because of informalities

Claims 5 and 15 stand objected to because of informalities.

Claims 1-7, 9-22, 24 and 25 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,168,980 to Yamazaki et al.

The Examiner is thanked for the indication that claims 8 and 23 include allowable subject matter.

Summary of the Response to the Office Action

Applicant has amended the specification. Also, Applicant has amended claims 1, 5, 11 and 15 to differently define the invention and to improve their form. In addition, Applicant has added new claim 26. Accordingly, claims 1-26 are pending for further consideration.

The Objection to Specification

The disclosure stands objected to because of informalities. Applicant has amended the specification by adopting the Examiner's helpful suggestion. Accordingly, Applicant respectfully requests that the objection to the specification be withdrawn.

The Objection to Claims 5 and 15

Claims 5 and 15 stand objected to because of informalities. Applicant has amended claims 5 and 15 by adopting the Examiner's helpful suggestion. Accordingly, it is respectfully requested that the objection to the claims be withdrawn.

The Rejection under 35 U.S.C. § 102(b)

Claims 1-7, 9-22, 24 and 25 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,168,980 to Yamazaki et al. To the extent that this rejection might be applied against the claims as, newly-amended, it is respectfully traversed for at least the following reasons.

With regard to independent claims 1 and 11, as newly-amended, Applicant respectfully submits that Yamazaki et al. does not teach or suggest the claimed combination including at least the feature of "depositing silicon oxide over the polysilicon active layer to form a gate insulation layer under a vacuum condition" and "applying heat to anneal the gate insulation layer under the vacuum condition."

The Office Action appears to allege that Yamazaki et al. discloses all of the limitations of independent claims 1 and 11 by citing to FIG. 1A through FIG. 7E and the corresponding text of Yamazaki et al. Applicant respectfully submits that this rejection is not applicable to claims 1 and 11, as newly-amended.

As described at [0039] of the specification, the present application discloses that “[w]hen forming the silicon oxide gate insulation layer 108 using PEVCD, a vacuum chamber is utilized so that the silicon oxide is deposited over the substrate 100 under the vacuum condition. After the silicon oxide deposition, an annealing process is conducted to the deposited silicon oxide layer 108 without vacuum break.” That is, in the present application, silicon oxide is deposited over the polysilicon active layer to form a gate insulation layer while under a vacuum condition in a vacuum chamber and heat is applied to anneal the gate insulation layer while under the vacuum condition in the same vacuum chamber.

In contrast to the present application, Applicant respectfully submits that Yamazaki et al. merely discloses applying heat to anneal the silicon oxide film under a vacuum condition in a chamber 301 but never teaches or suggests depositing the silicon oxide film under the vacuum condition in the same chamber 301. In other words, Applicant respectfully submits that Yamazaki et al. fails to teach or suggest the claimed combination including at least the feature of “depositing silicon oxide over the polysilicon active layer to form a gate insulation layer under a vacuum condition” and “applying heat to anneal the gate insulation layer under the vacuum condition,” as recited by newly-amended independent claims 1 and 11.

For at least the reasons as those discussed above, Applicant respectfully asserts that the rejection under 35 U.S.C. § 102(b) should be withdrawn because Yamazaki et al. does not teach or suggest each feature of independent claims 1 and 11, as newly-amended. As pointed out in MPEP § 2131, “[t]o anticipate a claim, the reference must teach every element of the claim.”

Thus, “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987).” Furthermore, Applicant respectfully assert that the rejections of dependent claims 2-7, 9-10, 12-22, and 24-25 and objection to claims 8 and 23 should also be withdrawn at least because of their dependencies upon independent claims 1 and 11, and for the reasons set forth above.

New Claim 26

Applicant has added new claim 26 to further define the invention by combining independent claim 1 and allowable dependent claim 8. Applicant respectfully submit that new claim 26 is allowable over the prior art of record based on the reasons set forth above.

With no other rejections pending, Applicant respectfully asserts that claims 1-25 are in condition for allowance.

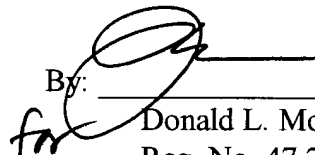
CONCLUSION

In view of the foregoing, Applicant respectfully requests reconsideration and the timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of the response, the Examiner is invited to contact the Applicant’s undersigned representative to expedite prosecution.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

MORGAN, LEWIS & BOCKIUS LLP

By:  Reg. No. 47,337
Donald L. Monin, Jr.
Reg. No. 47,256

Dated: October 28, 2004

Customer No.: 009629

MORGAN, LEWIS & BOCKIUS LLP

1111 Pennsylvania Avenue, N.W.

Washington, D.C. 20004

Telephone: 202-739-7000

Facsimile: 202-739-3001

DLM/XY/fdb